

Estimation of Yeasts and Molds in Foods and Beverages, Total Yeast and Mold Count (TYMC).

Equipment:

Refer to lab1 (Equipment, Materials & Glassware).

Media:

- Potato Dextrose Agar (**PDA**)
- Mycophilic Agar (**MA**)
- Sabouraud Dextrose Agar (**SDA**)
- Antibiotic Solution
- Tartaric Acid

Procedure:

Prepare food homogenate and decimal dilutions as directed under lab(1) respectively.

Pour plating:

Label all petri plates with the sample number, dilution, date and any other described information.

Pipette 1ml of the food homogenate of such dilutions which have been selected for plating into a petri dish in duplicate.

Acidify **PDA** or **Malt agar** with sterile 10% **tartaric acid** to pH 3.5 ± 0.1 .

Do not reheat medium once acid has been added. Pour 10-12 ml of the agar medium (tempered to 45 C). Mix by swirling and allow to solidify.

(OR)

Add 2ml **antibiotic solution** to 100ml of plate count, **mycophil** or **malt agar**. Mix and pour 10-12ml of the agar medium tempered to 45 C. Mix by swirling and allow to solidify.

Incubation:

Invert plates and incubate at 20 or 25 C for 2 to 5 to 7 days. Discard plates after seven days if growth is not observed, observe plates every day and mark the colonies because some time fungal growth spreads to entire plate and mask the colonies. Do not open the plates which are showing fungal sporangia.

Counting colonies:

Count colonies, multiply by the inverse of the corresponding dilution and report as yeast or mould count per g or ml.

Reporting:

Yeast and Mould count = x/g